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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,912	06/21/2001	Rodrigo Munoz	G03.013	6647

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EXAMINER	
KESACK, DANIEL	
ART UNIT	PAPER NUMBER
3691	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/886,912	MUNOZ, RODRIGO	
	Examiner	Art Unit	
	Dan Kesack	3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *9-16 and 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 17-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/11/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This applicant has been reviewed. Claims 1-20 are currently pending. The rejections are as stated below.

Election/Restrictions

2. Applicant's election without traverse of claims 1-8 and 17-19 in the reply filed on December 13, 2006 is acknowledged. Claims 9-16 and 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 3, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 17, the phrase "low risk option" renders the claim indefinite because "low" is a relative term which depends on the point of view of an investor. It would be unclear to one of ordinary skill in the art how low the risk of the option must be in order to be considered a low risk option. One investor may consider an option with a certain level of risk to be a "low risk option," while a more conservative investor may consider the same option with the same level or risk to be of moderate risk.

Claim 3 recites, "wherein said first investment option is a borrowing rate." The phrase "first investment option has antecedent basis in claim 1, which recites, "calculating a risk and a corresponding return on investment for each of said investment options." A borrowing rate is interpreted to mean a number or percentage representing the interest rate of a loan or mortgage. While the loan or mortgage may have a discernable risk and return on investment, the borrowing rate itself does not, and therefore it is unclear how a risk and return on investment for a borrowing rate can be calculated. For the purposes of applying prior art, the claim will be interpreted to mean any investment with an interest rate.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1 and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. 35 U.S.C. 101 requires that in order to be patentable the invention must be a "new and useful process, machine, manufacture, *or* composition of matter, *or* any new and useful improvement thereof" (emphasis added). Specifically the claimed invention as a whole does not accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." See State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention. The mere fact that the claim performs calculating an efficient frontier does not satisfy the requirement of 35 U.S.C. 101. The claim may be interpreted in an alternative as involving no more than a manipulation of an abstract idea and therefore is non-statutory under 35 U.S.C. § 101. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-5, 7, 8, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer's book, *Dynamic Asset Allocation*.

Claim 1, 8, 17-19, Hammer discloses using efficient frontier to calculate the relationship of risk to return on investment between two or more assets (p195-203). Hammer teaches calculating expected return and risk, and using them to determine the efficient frontier. While Hammer does not explicitly teach selecting a first and second investment option and selecting a duration, these are obvious steps involved in portfolio selection, and the method taught by Hammer requires a portfolio be selected.

Claims 2-6, Hammer teaches the method being applied to any mix of assets, such as stocks and bonds (p 196). Stocks and bonds may be of any risk level, may have an associated interest rate, and may have a duration. It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Hammer to include these characteristics because the teachings of Hammer are intended to apply to any conceivable mix of assets.

Claims 7, 17, Official Notice is taken that return on investment is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Hammer to include a return on investment calculation because Hammer teaches the inclusion of an "expected return on the asset" (p196).

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer, in view of Gollinger's and Morgan's article "Calculation of an Efficient Frontier for a Commercial Loan Portfolio", hereinafter Gollinger.

Hammer fails to teach the financial product being an automobile loan.

Gollinger teaches using efficient frontier to assess the risks and returns of loans. It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the teachings of Hammer and Gollinger to include automobile loans because an analysis of risk to return on investment is axiomatic to lending evaluation practices, regardless of the specific lending instrument.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Kesack whose telephone number is 571-272-5882. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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HANI M. KAZIMI
PRIMARY EXAMINER